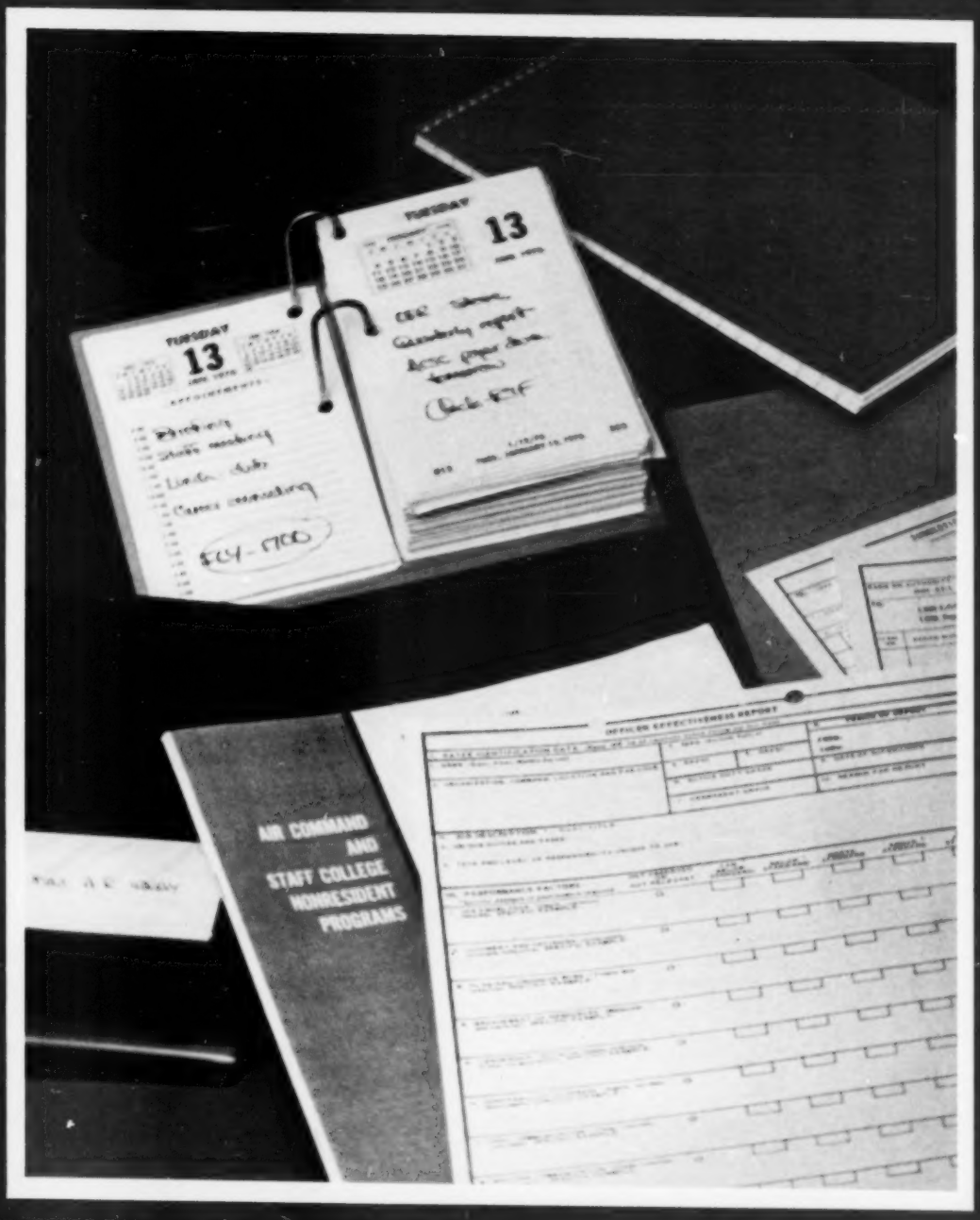
The MAC Flyer

JUNE 1976



A Matter of Priorities. Page 3.

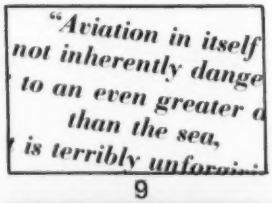
MILITARY AIRLIFT COMMAND
GEN PAUL K. CARLTON Commander
LT GEN JOHN F. GONGE Vice Commander
BRIG GEN EDWARD J. NASH Inspector General
COL EMERY J. CRANE Director of Safety

The MAC Flyer

For Greater Efficiency
in MAC Air Operations

THE STAFF
LT COL JOHN W. RAY Supervising Editor
MAJ ORLEN L. BROWNFIELD Associate Editor
CAPT BRUCE L. GUMBLE Associate Editor
ISOBEL M. BRYANT Managing Editor
BRIAN L. GAUSS Art Director

JUNE 1976 MAC RP 127-5 VOL XIII, NO. 6



9

20

24

A Matter of Priorities. 3
Mishaps with a Moral 7
Carelessness, Incapacity, or Neglect. . . 9
The Graduate 12
Handbook of MAC Aviator Terms and Other Neat Sayings 16
Global Notes 18
A Slight Case of the Blues 19
All the People, All the Time 20
Letters to the Editor 22
C. R. Terror 24
Quick Stoppers 28

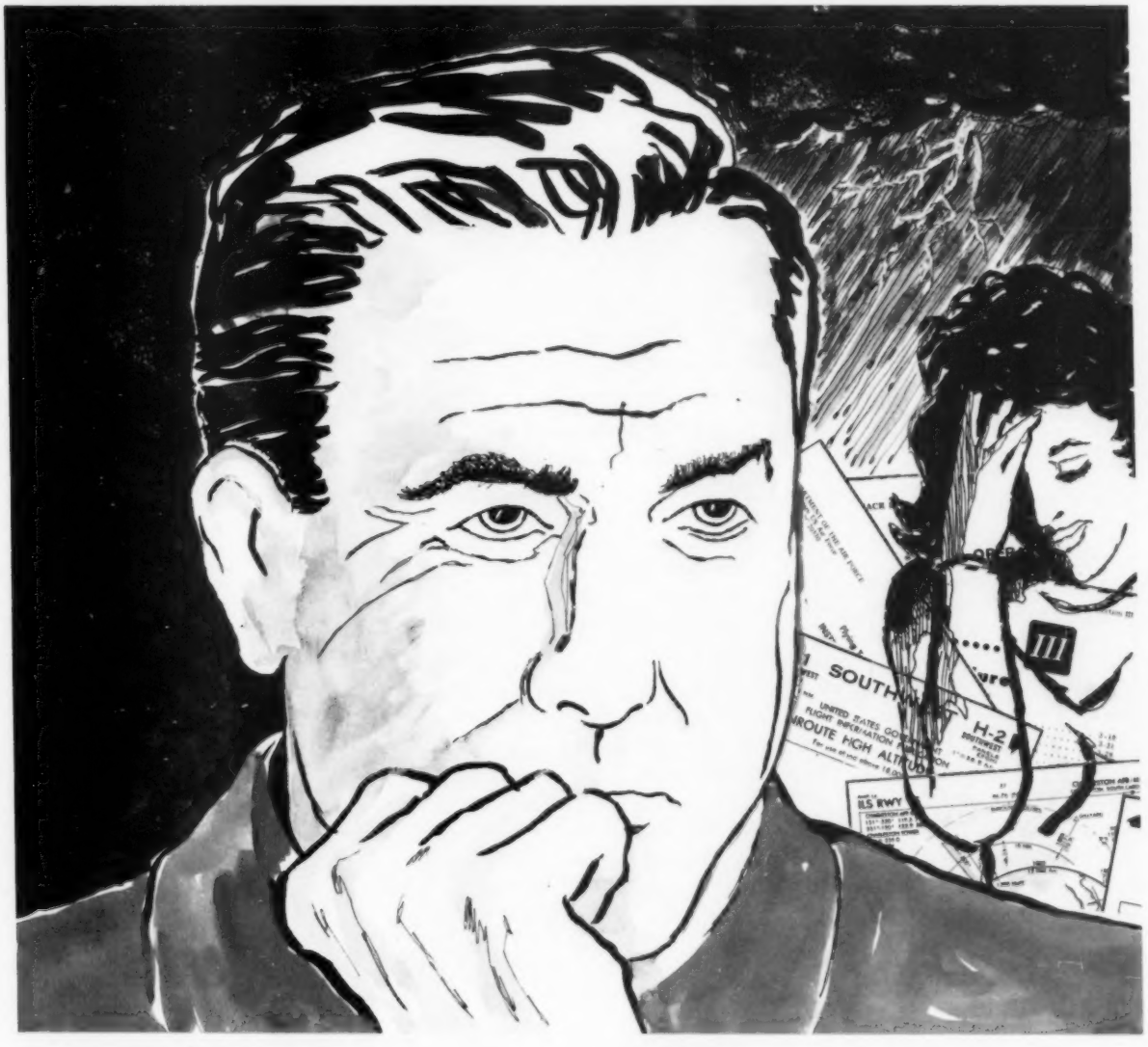
THE MAC FLYER is published by the Directorate of Safety, Headquarters Military Airlift Command. The contents are informative and not regulatory or directive. All names in accident stories are fictitious and no information concerning aircraft accidents may be construed as incriminating under Article 31, UCMJ.

Contributions, comments, and criticisms are welcome. Write: The Editor, THE MAC FLYER, MAC/IGFE, Scott AFB, IL 62225, or call: (618) 256-3534, Autovon 638-3534. The editor reserves the right to change manuscripts to improve them or correct technical errors.

The magazine is available from: The Superintendent of Documents, Government Printing Office, Washington, DC 20402. Price 70 cents per copy, $7.90 per year ($9.90 foreign).

Distribution F, X; OPR MAC/IGFE.

Flying a desk can be just as demanding as flying an airplane. Trying to do both at once can be disastrous.



A Matter of Priorities

by Capt Bruce L. Gumble
Associate Editor

Morning, Shirley. How's the coffee? Bad as usual?"

The secretary looked up in mild surprise. "Good morning, Major Gray. No, I think it's worse than usual today. But I didn't expect you in this morning—aren't you flying local tonight?"

"Yeah, sure am. But I've got that report to get out, and I've really got to finish Steve's OER today. No rest for the wicked, right?"

Shirley returned his grin. "Speak for yourself, Major. I get plenty of rest." She turned back to her typewriter as he walked into his inner office.

He paused to admire the nameplate on his desk, as he so often did. Rich, dark walnut. Brushed stainless steel. And the engraved name and title: Alan R. Gray, Major, USAF, OIC. Not bad for a slum kid, he told himself. You've come a long way, baby. And then, as he sat down behind the desk and felt the weariness deep in his neck muscles—but there's still a long way to go.

Major Gray had indeed come a long way. From a poor family in a dying industrial town, he had worked his way through college, graduated with honors, and earned an Air Force commission. A regular commission followed, as did early promotion to major. Now he was holding down a job normally performed by a lieutenant colonel. And he was doing well at it.

He considered himself lucky. Very few staff jobs allowed a man to keep flying. He enjoyed flying, and was proud of the fact that he continued to do so as an instructor. But recently, it had become more difficult for him to get away from the office long enough for a mission out in the system. Flying an occasional local let him keep his hand in, but lately he was having difficulty finding time even for locals.

Tonight's flight would be his first in nearly a month.

He reached across the desk for the half-written OER. It would be a good one; Steve, his assistant, was one of the sharpest young captains on base. He loves to fly, and there's nothing wrong with that, Gray thought. But he's got to get his priorities straight. Flying isn't what gets a man promoted. Major Gray glanced briefly through the OER, picked up a pen, and began writing.

By lunchtime, he had finished the OER and was well into the quarterly report. He was feeling moderately self-satisfied as he walked into the club and spotted Charlie St. John. Charlie was a major, an assistant ops officer, and an old friend.

"Allah be praised!" Charlie raised his eyes to the ceiling in mock gratitude. "My humble board is to be graced with the glorious presence of an authentic Wing Weenie! Be seated, sir, and allow your humble servant to share his bread and salt with Your Magnificence."

Alan smiled. "At ease, men, I'll be in the area all day. How are things down in the trenches?"

"A lot better since you decided to take that local for us. I've got too many IP's who don't like to let the Air Force interfere with their personal lives. How's it with you, Al? You look a little red around the eyeballs."

"Not too bad—had a short night last night. Working on a paper for Command and Staff, and another one for the master's program." Plus the fight with Kate, of course—but he left that thought unspoken.

Charlie whistled. "Careful, son, or you'll educate yourself out of a job. You have to be just a little bit dumb to be an airplane driver."

"And you have to be just a little bit smart to get promoted. Just fillin' those squares, my good man, just fillin' those squares." The talk went on to the new OER system, and by the time lunch was over, the two friends had taken the system apart and reassembled it the way it was meant to be.

Later in the afternoon, Gray was nearing the end of the quarterly report when his secretary tapped on the door.

"Excuse me, sir, but your wife just phoned. The squadron called to alert you for your local."

"Oh, thanks, Shirley. I forgot to tell them to call me at the office." He knew why Kate hadn't asked to speak to him; she was still miffed about last night. He thought again about the fight, and the cancelled dinner invitation which had started it. Dinner at the Carlyles' could wait, and those papers couldn't. He turned back to the report, determined to finish it before he left.

Kate wasn't home when he returned to change into his flight suit. Just as well, he thought. No scenes. He changed quickly and picked up his brief-

case. Accumulated manual changes were still lying loose inside it. One of these days he was going to have to let Steve handle the office for a few hours and really get his books in shape. A little Dash One study wouldn't hurt, either; lately he'd been getting too many questions that he just couldn't answer from his students. He loaded his gear into the car and headed for the flight line, watching the rear view mirror and pressing the speed limit just a little.

•

Cold rain was falling as the Starlifter descended through the winter night. Major Gray, in the right seat, acknowledged heading and altitude for the GCA pattern, and settled back.

This has been an easy one, he thought, and we're nearly done. Just a proficiency ride, my own two and two, and now we're practically headed for the barn. Wish they were all this simple.

They'd just made a full stop and dropped off the pilots who'd completed their currency items, and now only he and one other pilot shared the cockpit with the engineers.

The voice of the controller broke in. "Hardy four three, a right turn now to heading 130, maintain two thousand, downwind."

"Understand, right to 130 and two thousand for four three. The instructor glanced to his right, saw only blackness, and stated, "Clear right." His eyes returned to the instruments as the big jet smoothly rolled into the turn.

Looks like we might get done early, he thought. Good thing—I could use some extra shuteye. Another full day tomorrow.

He was mentally going over his list of tasks for the following day when the voice of the left seater interrupted. "Sir? Excuse me, but I'm ready to brief."

"Oh, sorry, Taylor, I was thinking of something else. Go ahead." Mentally, he chided himself: Dammit, pay attention. This kid isn't bad, but he isn't great, either.

His briefing finished, the left seater called for the before landing checklist. Major Gray worked through it smoothly as the Starlifter moved through the darkness. "Before Landing Checklist completed," he announced, paused to rub his tired eyes, and settled down to watch the approach.

In the semi-darkness of the RAPCON facility, a controller watched the IFF trace which represented Hardy 43. He wasn't satisfied with the picture. A flight of slow-moving aircraft was on final and would conflict with the C-141. An extended downwind would require changing the Starlifter's altitude because of the higher terrain to the south and east. The controller keyed his mike.

"Hardy four three, I have slower traffic on final. Make a left three-sixty for spacing; maintain two thousand."

"Hardy four three, wilco," came the curt reply. "Maintaining two." The return began moving to the left; the controller turned his attention back to the aircraft on final approach.

In the C-141's cockpit, Major Gray shrugged off his mild annoyance. First hitch in a smooth flight, he told himself; no point in getting bothered. He glanced at the gauges. Airspeed and altitude were okay; heading passing through 110 degrees . . .

The smoke filled the cockpit with incredible swiftness. In an instant, he was looking at the dim glow of the instruments through a veil of acrid, choking murk. "Jesus!" he gasped, then coughed as the stench filled his nose and throat. "Oxygen! Get on oxygen!" Across the cockpit, the young lieutenant was staring at him with wide eyes. At the hoarse command, the lieutenant spun to his left and began fumbling with the sweep-on mask. In his frantic effort to don the mask, he let go of the controls, and slowly the Starlifter's bank angle steepened.

Gray had his mask on now and was inhaling huge gulps of oxygen. Through burning, streaming eyes, he stared at the cocked attitude indicator. Savagely, he seized the yoke and rolled the aircraft wings level. The heading indicator, unnoticed for the moment, settled on 090.

"Engineer, copilot! You on?"

"Yes, Sir. Pilot's on too, but I don't think he can talk." The engineer gestured forward, where the student was fingering the microphone switch and fumbling with his interphone connection.

"Never mind, at least he can breathe. This has got to be electrical. We haven't got time to fool with it. Shut off all the bus disconnects."

"But, Sir . . ."

"Dammit, don't argue, do it." Gray's voice was tight, strained.

"Yes, Sir." The flight engineer moved the four switches to OFF. Darkness and silence hit Gray like a physical blow.

Oh, God, he thought, I forgot. No interphone on this side with those switches off. And Taylor can't talk, either. Where the hell is the spare engineer's cord? He jammed his seat rearward, turning to the right, frantically searching for the cord that would put him back into contact with his crew. In the left seat, Taylor continued to struggle with his interphone system. With no hands guiding its flight, the Starlifter began to descend.

•

Miles away, the controller finished a transmission to the flight of slow-movers on final and looked back to see how Hardy 43 was doing with its 360-degree turn. He was startled to see how far east the return had moved. As he watched, it moved even farther—heading due east. Inexorably, it approached the line marking a sector where the minimum vectoring altitude increased to 4,000 feet. There, the land began its rapid climb from the river valley to the barren and stony hills.

With the nightmare feeling of moving under water, the controller reached for the switch and transmitted on guard frequency. It went unanswered. He called again—and again. Seconds slipped away and the radar return continued its steady eastward progress. Still no answer.

•

In the pandemonium of the cockpit, Gray had given up his search for the interphone cord. If he could just get the engineer to hand it to him—but the sergeant had his back turned, watching the scanner tear off the panels covering the electrical distribution system.

Got to yell at him, Gray thought. It's the only way. He ripped off the mask to make himself heard. Smoke filled his lungs. A spasm of retching seized him. He doubled over, trying to clear the choking stuff out of his throat. From the left seat, Taylor watched in panic. Neither of them noticed the single operative altimeter on the pilot's side as it slowly decreased through 1,200 feet.

It seemed like hours to Gray before he got the mask back on and brought the spasms under control. For a moment, he simply sat bent over, breathing deeply. He was incredibly tired. Nothing seemed to make sense. He could see the beam of the scanner's flashlight as it swept around the cockpit, but his mind couldn't identify it. There's something I have to remember, he thought dully, but I can't. Wait a minute—priorities, that's it, something about priorities.

•

At RAPCON, several grim-faced men watched as Hardy 43's transponder return disappeared from the scope. For a moment, no one moved or spoke. Then most of them turned and drifted away, moving as very old men do. One of the others reached for a telephone.

•

Shirley sat at her typewriter, the shock and grief still a coldness inside her. From the inner office, she could vaguely hear the unfamiliar voice on the telephone. She didn't pay much attention to it.

"Yeah, Charlie, hi . . . Yeah, I know, hell of a thing . . . . No, not too much. It'll be a good job when I get my feet on the ground. Nobody wants to get a good job this way, though . . . . What? Oh. No, Charlie, I wish I could, but . . . . Yeah, I know how short we are on IP's. It's just that I've got so much to do here. Yeah, well, probably not next week, either; I'm on the advisory committee for that dining-in . . . Well, yeah, sure I will, Charlie. Just let me get organized a little bit first. I'll give you a call . . . No, not long. Not long at all. Just long enough to get my priorities straight."

Mishaps with a Moral

Reports of many major aircraft accidents, although perhaps differing greatly in their details, seem to have one striking similarity. As you read through a report and follow the sequence of events that changes a routine flight into a tragedy, you find yourself pausing at some point in the narrative and thinking, "Now, this is where it could have stopped." Very frequently, this is the point at which the pilot or crew had one last chance—and missed it.

This is true of the two accidents described here. One was a multiengine jet, the other a century-series fighter; one occurred just after takeoff, the other on landing. But in each case, the stopping point becomes readily apparent.

Deadly Distraction

The aircraft had been launched as the spare for an operational reconnaissance support mission. Maintenance problems during the preflight had caused an extended delay. The temperature was near minus 50 degrees F., and no ground heaters were available to warm the cockpit. The aircraft APU was also inoperative, so that cockpit heat was unavailable during taxi.

Takeoff was normal, but at approximately three miles from the departure end of the runway, the pilot reported that he was unable to retract the gear. He requested and was cleared for a right turn. Altitude of the aircraft at this point was estimated at 300 to 400 feet. The pilot rolled into the turn, reduced power, and began troubleshooting the gear.

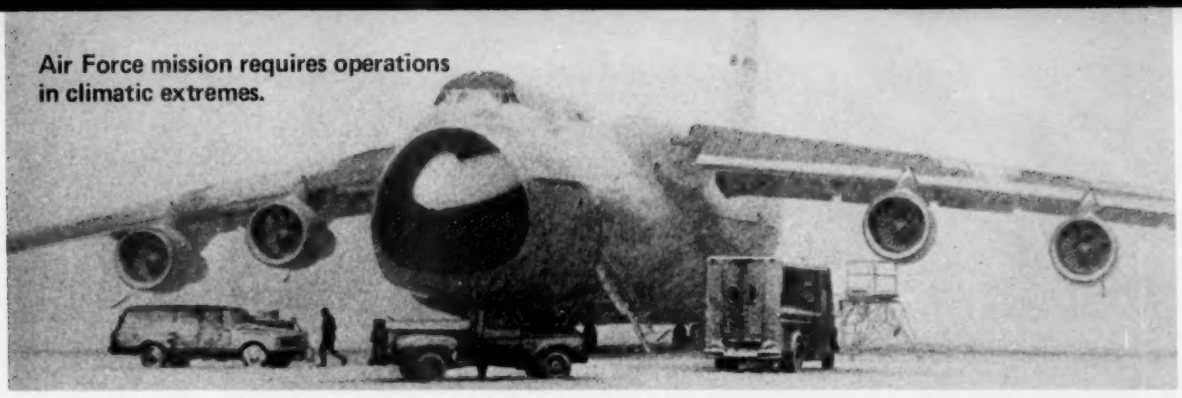
While the crew's attention was focused on the stubborn landing gear, airspeed slowly decreased. With the aircraft in a turn, the big jet began to buffet. The pilot applied power and rolled the wings level, but the aircraft was low and well behind the power curve.

Attempting to reduce drag, the pilot retracted the flaps, but the loss of lift at such a low airspeed only degraded aircraft performance further. Two minutes and five seconds after takeoff, the aircraft mushed into the ground in a nose-high attitude. It broke up and burst into flames. There were no survivors.

Let's look at some of the factors that contributed to this accident. The gear malfunction which distracted the crew is not the type of problem that should have serious consequences. Wheels that won't come up aren't much more than an annoyance on a jet aircraft producing normal power. The ones that won't go down are the real attention-getters.

The accident occurred during a critical phase of flight: initial takeoff at a relatively high gross weight. But this situation is common enough to transport drivers, and normally prompts the pilot to get more distance between himself and the terrain as soon as possible. In this case, however, it didn't—which brings us to the third factor.

Operations during extremely cold weather—or, for that matter, in extreme heat—are hard on people as well as machines. There's no way to measure the effect of the extended "cold-soaking" this crew experienced, but it may have degraded



Air Force mission requires operations in climatic extremes.

their performance. The accident board recommended that a study be conducted to determine the effects of extended flight crew exposure to extreme cold, and that definitive rules be established for flight crew ground operations in extremely low temperatures.

The Air Force mission requires operations in climatic extremes and though it's not always possible to avoid the discomfort involved in such operations, crews should be aware of the effects extreme conditions may have on their performance. Distractions come in many varieties—some obvious, some subtle. Don't let any of them take the place of the number one priority: aircraft control.

Conspiracy for Disaster

This accident resulted from a combination of errors so unlikely that it seems almost like a deliberate conspiracy. Weather played a part, as did several people—including the pilot.

Rain showers moving toward the runway at home base started the chain of events. The presence of rain was not included in the weather sequence issued just nine minutes prior to the accident. But the showers were noted by the Supervisor of Flying, and a weather recall was issued to all airborne flights—except one. That particular flight received notice of the shower activity from approach control as it was returning to the local area. The flight split up for individual ASR approaches.

While the flight was en route to the local area, the Runway Supervisory Officer checked in on approach control frequency. Concerned about the weather, the flight leader asked the RSO, "What's it look like?" The RSO responded, "You'd better hurry."

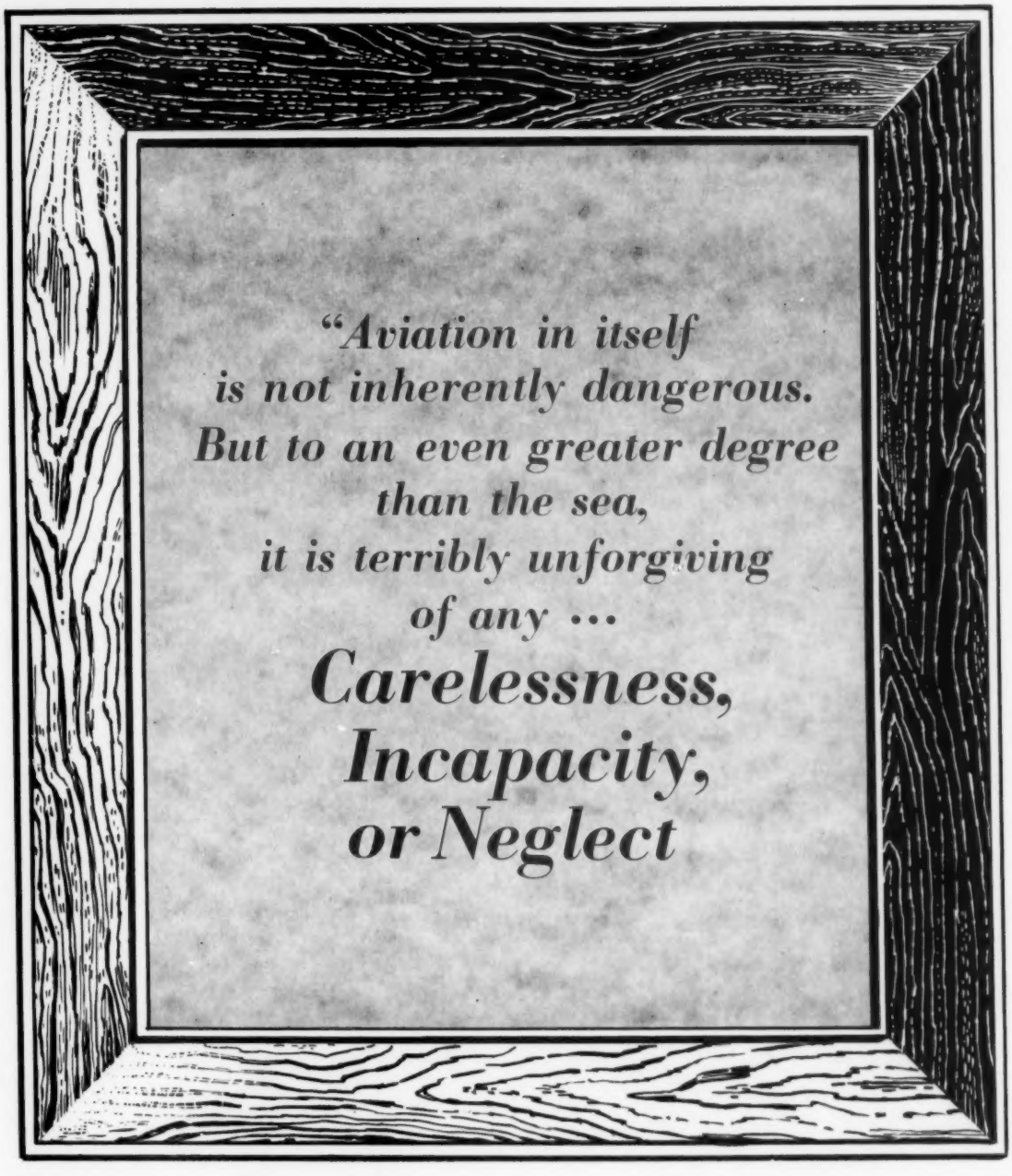
The approach controller then began vectoring the wingman, who was to land first. Although the pilot had requested an ASR approach, and his request had been acknowledged by approach control, the controller provided only vectors to final—and did not advise the flight that no further information would be given! Neither of the pilots noted or commented on the difference between the expected approach and the service actually provided.

By this time, the weather was such that only an ASR could have gotten the pilot in close enough to see the field. When the plane was two miles from the field, the pilot was instructed to execute a missed approach. But as his aircraft passed overhead, the pilot reported the field in sight and requested clearance for a visual approach. His request was approved, and he turned left for a tight downwind.

The pilot turned final, but clouds and rain obscured the runway. Witnesses saw the plane emerge from the clouds in a steep diving left turn. It rolled wings level as the pilot selected afterburner and began a pullup, but exploded into the trees short of the runway, slightly nose high.

•

This is one of those stories that seem to be full of "if-onlys." If only the SOF had assured that everybody had received the weather recall; if only the RSO had given the flight more complete weather information; if only the controller had provided the pilot with the ASR he needed instead of simply radar vectors to final. But the final "if-only" is the same one we hear so often: if only the pilot had gone around instead of trying to continue a visual approach through instrument conditions. No matter how many errors and malfunctions precede an accident, the last chance to avert it frequently belongs to the man at the controls. This conspiracy for disaster wouldn't have worked—if the last man hadn't joined it.



Carelessness, incapacity, or neglect. No one seems to know who originated this aeronautical axiom or the many versions of it that are often seen in print, but accident files seem to bear witness to its credibility.

Some years ago, there was much concern about the airworthiness of the aircraft we flew. The state of the art has almost rendered such concerns a "dead letter." Today, we read more about "carelessness, incapacity, or neglect;" and the writers are talking more about the operator in the aircraft than the builder or maintenance type on the ground.

Civilian and military alike slip the surly bonds in one location only to become smoldering, twisted aluminum heaps elsewhere—rocky plateaus, gorges, mountains, and sometimes in the sea.

Many accident reports read almost like carbon copies of earlier ones. One such accident occurred

early this year, and in many respects is like another that occurred near the same airfield several years ago. Let's take a look at this latest accident.

"The crash caused damage to foliage at the point of impact and caused craters of varying sizes and shapes over an area approximately one-half mile in length and two hundred feet in width. The land damaged was private property and consisted of plowed fields with planted crop . . ."

The terrain elevation at the point of impact was more than 2,000 feet below the minimum descent altitude.

This one is typical of several military and civilian accidents in recent years. And it's applicable to you, whether you fly a C-141, T-39, C-130, or whatever.

Except for a maintenance delay, the crew of the four-engine jet thought they were in for a routine day. Perhaps the maintenance delay made it even more typical. Their destination weather was forecast to be good—scattered cloud decks down to 3,000 feet MSL, with visibility of five miles plus. The crew got their craft airborne and performed their assigned tasks without event.

With the difficult part of the mission behind, the Air Force crew headed their eager craft south toward their destination airfield.

The crew did not update destination weather at any time during the flight, but did receive an altimeter setting of 29.74 prior to executing a penetration. For a period of about 13 minutes, the crew attempted to contact the consolidated command post. The calls were heard; however, command post responses were not acknowledged.

GCA monitored the aircraft's penetration and the controller stated that the four-engine jet was established on the inbound ILS course between 20 and 25 miles out. As the aircraft continued inbound, GCA advised the crew that there were possible weather returns in their 12 to one o'clock position at eight miles. "Thank you," was the crew's response.

GCA then instructed the flight to contact radar monitor on a different frequency. The acknowledgement was the last transmission received in the sequence.

Seventy-two seconds later witnesses observed a large fireball approximately 14 miles northeast of the base. Though a light rain was falling, visibility was good to excellent, with bases of scattered clouds varying from 4,000 to 5,000 feet.

The terrain elevation at the point of impact

was more than 2,000 feet below the minimum descent altitude. Safety investigators determined that the aircraft struck the ground in a five degree left bank and three degree descent. Other analysis indicates that the aircraft was in a 1.8 G pullout maneuver. Landing gear was down; altimeters were set at 29.92. The crew was killed upon impact.

Apparently all four power plants were performing properly and all radio-navigation equipment was functioning. Minimum descent altitude for the segment of the approach was depicted on the letdown plate as 4,550 feet. And yet the main landing gear of the aircraft struck terra firma at an altitude of 2,430 feet.

"Learn from the mistakes of others" is an oft-repeated cliche in flying safety circles. The philosophy has permeated various staff levels throughout the Air Force. Said another way: If experience has proved that this is not a good idea, then let's not do it again. Good advice. But repetition seems to take the edge off of "good advice," regardless of how "good" it is. And perhaps that's the problem. When accident reports start sounding the same, perhaps we tend to disregard them much as we avoid old television reruns.

Several years ago, a MAC transport crashed nearly 23 miles east of the same base. It was on a routine mission with all systems functioning properly. This recovery, too, was at night. Experience of the pilots in command was similar; both AC's had less than 1600 hours total flying time. And both descended below minimum safe altitude for their position. Both crews had just received a change in radio frequency and might have become distracted by the mechanics of reestablishing contact.

There are also certain clues that might indicate that someone aboard both aircraft realized something was wrong. Certainly the 1.8 G pullout maneuver in the 1976 accident gives evidence that someone knew something was wrong and tried too late to do something about it. In the earlier crash, a crew member's remark that there was terrain above the aircraft's altitude should have served as a warning.

Embarrassing Questions

The typical aircrew member is sometimes embarrassed to ask questions that he should know the answer to. For example:

Navigator: "Where are we?"

Copilot: "What kind of an approach are you shooting?"

Pilot: "What was our cleared altitude?

A lack of knowledge not only can be embarrassing. It can also be dangerous. So can keeping knowledge locked up inside yourself. Given a choice between the two, select embarrassment. Your macho may suffer some visceral bruises but at least the skin won't be broken.

Where Are We?

There are certain times, such as over the mid-Pacific, that only the navigator can (hopefully) answer this question. Other times, such as taxiing around a strange airport, perhaps only the pilots can answer the "where are we" question. But once you start flying a departure or arrival route, it is the responsibility of pilots and navigators to know where you are.

Sometimes this is difficult. Arrival at some of the less sophisticated airports can be extremely challenging when there is no tacan, VOR or GCA to get you safely down. Equipment malfunctions can provide an additional challenge. A non-operable radar or tacan, or a squirrelly glide slope indication may provide unwanted tests.

Per Diem, 781, and Other Trivia

But the challenge often comes from the routine—how we perform our particular job and the habit patterns we develop. How many times have you turned around in your seat to find the navigator filling out the per diem or tidying up his paperwork during descent? Or your copilot (certainly not the AC!) filling out the 781 as you're passing 5,000 for 3,000? Or perhaps the AC doodling on the Mission Record as the aircraft passes 10,000 feet? After all, who wants to be bothered with such trivia after arrival? It is so easy to violate rules of safety during a "routine" mission!

The closer you get to the ground, the more competition there is for your attention. And whether the challenge comes from outside the aircraft or within, the result is too often the same—allowing a sophisticated aircraft to come in contact with unsophisticated terrain.

The Graduate

During a desperate emergency, a pilot learns that no matter how many tests you pass, there's always another one ahead.

by **Maj Orlen L. Brownfield**
Associate Editor

The weather was good and a stout Central American sun gave us a good view of the earthquake damage as we departed Tachos Airport in Mexico. It was quite a mess. Smoking rubble was visible for nearly 20 miles.

"Sir, your climb EPR is 1.86."

"Set." Okay, let's see. We

logged off at 1845Z, 6 June 1976. I settled back in my seat. The sixth of June. That's sure a familiar date, but I don't know why.

"No thanks, Sergeant Smith. No coffee for me. I'm coffeed out."—It's not Jill's birthday. Not our anniversary. Not—wait, now I've got it. Six years ago today, June 6, 1970. How could I possibly forget? The things that have happened during that six-year period.

"Robert Neil Brown, Junior."

I can still hear the same somber voice that summoned me up the stairway to collect my diploma and shake the dean's hand.

"Thank you, Sir."

"Good luck, Robert."

Good luck, Robert? Such a facade—pretending to know me. "Good luck, Bob," would've sounded more personal. So he doesn't know they call me "Neil"—why pretend?

"Neil, we're so proud!"

"Thanks, Mom."

"Son, you've a wonderful future ahead. Just think, next week, you get your Air Force commission—and I know you'll be a fine pilot."

"I don't know, Dad, I hear it's not that easy."

"Nonsense!"

Seems like yesterday—

"Loadmaster clearing headset, I gotta square things away."

The sound of kids crying in the background comes over the interphone system as he opens his mike button; then all is quiet.

The Starlifter climbs easily through 21,000 feet, hardly taxing the Pratt and Whitney turbofans.

"Well, Jim, what are we going to do after we deliver our precious cargo to Galveston?" I ask my copilot.

"Hey, Skipper, I went to school at East Texas. I can line the whole crew up."

"Ah, the life of an Air Force aviator."

"The President of the United States . . . reposing special trust and confidence in the . . ."

Hmmm, I remember thinking, special trust and confidence, huh. Maybe dad was right. Being an Air Force officer might just be the super deal I'm looking for.

What was that? A strange noise—kind of a muffled "Phoof." The fog! I *know* what it is!

I reach for my "sweep on." There, that was easy.

"Okay, everybody check in."

"Navigator's on. Neil—the highest terrain around is eleven five, 13,000 should be good."

"Copilot's on—I'll tell 'em we're descending."

"Engineer's on. We've got zero cabin differential."

"Loadmaster checking, Sir. There's a lot of trash back here, but everything looks okay—I mean with the pax."

I'll just ease back on the power and thumb the pitch control.

"We'll just pick up a 3,000 foot per minute rate of descent to about 15,000 and start our level-off. Navigator, do we have enough fuel to make Galveston at 13,000?"

"I think so, I'm checking," I hear him say. "There's a couple of suitable airfields en route. No sense taking these kids back to Tachos; the Army field hospital is probably saturated."

"Good point."

Something isn't quite right. My rate of descent is 4,500 feet per minute and the autopilot doesn't want to help. I'll just punch it off. There. A little trim and—what the hell is going on? I can't seem to arrest the

descent even with the yoke.

"Hey, boss," my copilot warns, "your descent rate is approaching 7,000—we don't want to pop any eardrums."

Valsalva. "Yeah, I'm having a little problem here. You want to try it?" Directing, more than asking.

I remember the last time I had such a helpless feeling.

"Brown, if you don't ease up on that stick, you're gonna kill us all!" My instructor seemed excited. "Spinning the '38 is not my favorite hobby!"

"I'm trying, Sir."

"That's okay, I've got it," he said. "We'll talk about this one on the ground."

As Jim takes the yoke, the overspeed warning sounds. Wow—360 knots! He's running the trim and easing back on the yoke. The nose of the aircraft begins to rise.

"It's working!" A long sigh.

"I don't know—something isn't quite right," Jim has a puzzled look on his face. "I've got good aileron control, but I can't feel much response fore and aft. I don't think it's artificial feel."

"Okay, engineer, how about getting your buddy to go back and explore the damage—it looks like we've got diminished pitch control."

Bet this isn't covered in the Dash One.

"How I envy you your position," the General drawled. "It's been almost thirty years since I sat in your place, waiting to get my wings. I thought they had taught me everything—that there were no challenges left for me. Maybe you feel the same way.

"But, you won't be able to get everything from the book. And you'll find that many, many challenges await you out there . . ."

Well, General, let me tell you—I envy you your position. Let me out of this make-believe training business and into the real world.

The real world, huh?

"Let's level off here, Jim, and get a good estimate of the damage."

"Damn it, Neil, I've tried electric and hydraulic and resets." Jim is pointing at the annunciator. "Look. Nothing is moving."

"Captain Brown," I hear the engineer's voice over a dull roar from the cargo compartment. "It looks pretty bad back here. There's hydraulic fluid leaking and I see some loose cables hanging."

I glance at the attitude indicator: five degrees nose up and going higher. The airspeed has dropped off to 260 indicated.

"Let's both try, Jim," signaling to push forward on the yoke.

Nothing.

We've got no pitch control—or do we?

"There are two schools of thought," my instructor said. "Personally, I like to use power to control my climb and descent—and pitch to control my airspeed. The result is the same, since the two go hand-in-hand."

I was just seventeen then—my second or third flying lesson. Scotty claimed to have taught Bevo and Lindbergh to fly. I believed him. He was pretty old and a good pilot. And he did have all sorts of autographed pictures hanging around the old house he called "operations."

"Let me show you," he said.

Scotty "ruddered" the Champ into a left bank and let the nose fall through the horizon. Kicking the right rudder, he leveled the wings and added power (if you can call a Continental 0-200A "power") and we were straight and level. He never even touched the stick or trim.

Now the Starlifter's airspeed is down to 180 knots as our attitude approaches 25 degrees nose up.

Left bank—ten, twenty, thirty

and finally forty degrees and the nose begins to fall.

As the nose passes through the horizon, we roll the wings level and apply power.

Without saying a word, Jim and I realize that our only pitch control is through the use of bank and power.

We practice. Jim controlling the bank, and I the power.

We've got relatively stable flight. "Okay, crew, let's get off the oxygen," I am saying.

"Neil, there's an airport dead ahead about twenty-five miles." It's the navigator. "General Pierre Mosconi or something like that. They've got 8,300 feet of hard surface. If you want to approach it from the southeast, we'll be over water and terrain won't be a factor."

"Rog, sounds like a good idea."

"It's on page forty-four in the book. Turn twenty degrees left and we'll intercept a long final about fifteen miles out."

I was having a hard time understanding the RVN controller and it was raining like hell.

"Turn left, heading two two zero," he said.

The Caribou didn't perform too admirably, but on one engine, we just might make the runway.

"Two miles from touchdown," the controller continued.

And I had the airport in sight!

"Okay, Nav, I've got the runway," I report, almost matter-of-factly. "If we make it, the touchdown will be at about 250 indicated—we've got the gear down. Needless to say, Jim, full brakes, reverse and spoilers when we're well planted."

"Yes, Sir. No flaps?"

"No flaps."

"Pilot, we'll probably blow all the tires on touchdown," the engineer surmises.

Yes, we probably will. I won't win any awards for this one.

"Damn, that was a terrible landing—sorry, gang."

"No sweat, Lieutenant," the Altus IP said, "This Oklahoma sun takes all the lift out of the air."

"Gawd, I oughta be able to do better than that."

"You don't get any awards here," he had continued, "Remember the old saying, 'Any landing you can walk away from is' . . ."

I just hope we walk away from this one.

"Looking good, Neil. Only about a mile to go." It's Jim.

"Yeah, if we can just get this thing settled down.

"Nope. No, we're losing it, Jim. Hit the alarm bell."

MEXICO CITY (UPI)—An Air Force C-141 jet transport crash landed at General Pereira Da Mosconi Airport early this morning. The American military cargo plane was on a humanitarian mission evacuating children from earthquake stricken Tenochitichlan, according to Air Force spokesmen. Tenochitichlan is a large Mexican village located in the Sierra Madre de Occidental.

Initial reports from General Da Mosconi indicated that there were some injuries, but no fatalities.

•

"Captain Robert N. Brown, Junior."

The young man in class "A" blues rose, walked to the lectern, and saluted.

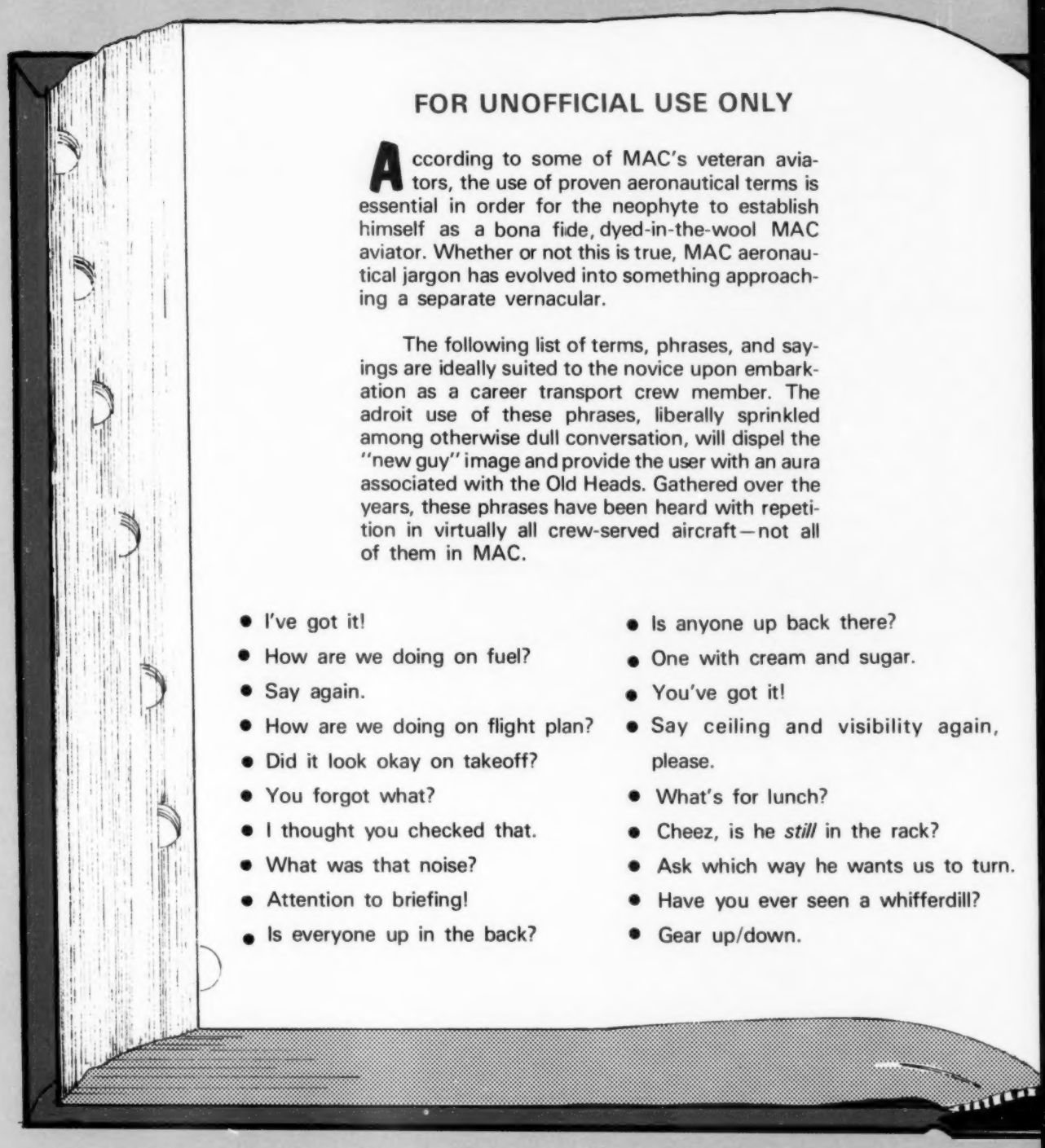
" . . . and let me say, as your wing commander, you've made me very proud. You're a real pilot's pilot, Bob."

The young officer saluted, did a sharp about-face, and marched away.

"Call me Neil," he mumbled under his breath. But no one heard him.

Handbook of MAC Aviator Term

The following handbook is provided for FNG's, but may



FOR UNOFFICIAL USE ONLY

According to some of MAC's veteran aviators, the use of proven aeronautical terms is essential in order for the neophyte to establish himself as a bona fide, dyed-in-the-wool MAC aviator. Whether or not this is true, MAC aeronautical jargon has evolved into something approaching a separate vernacular.

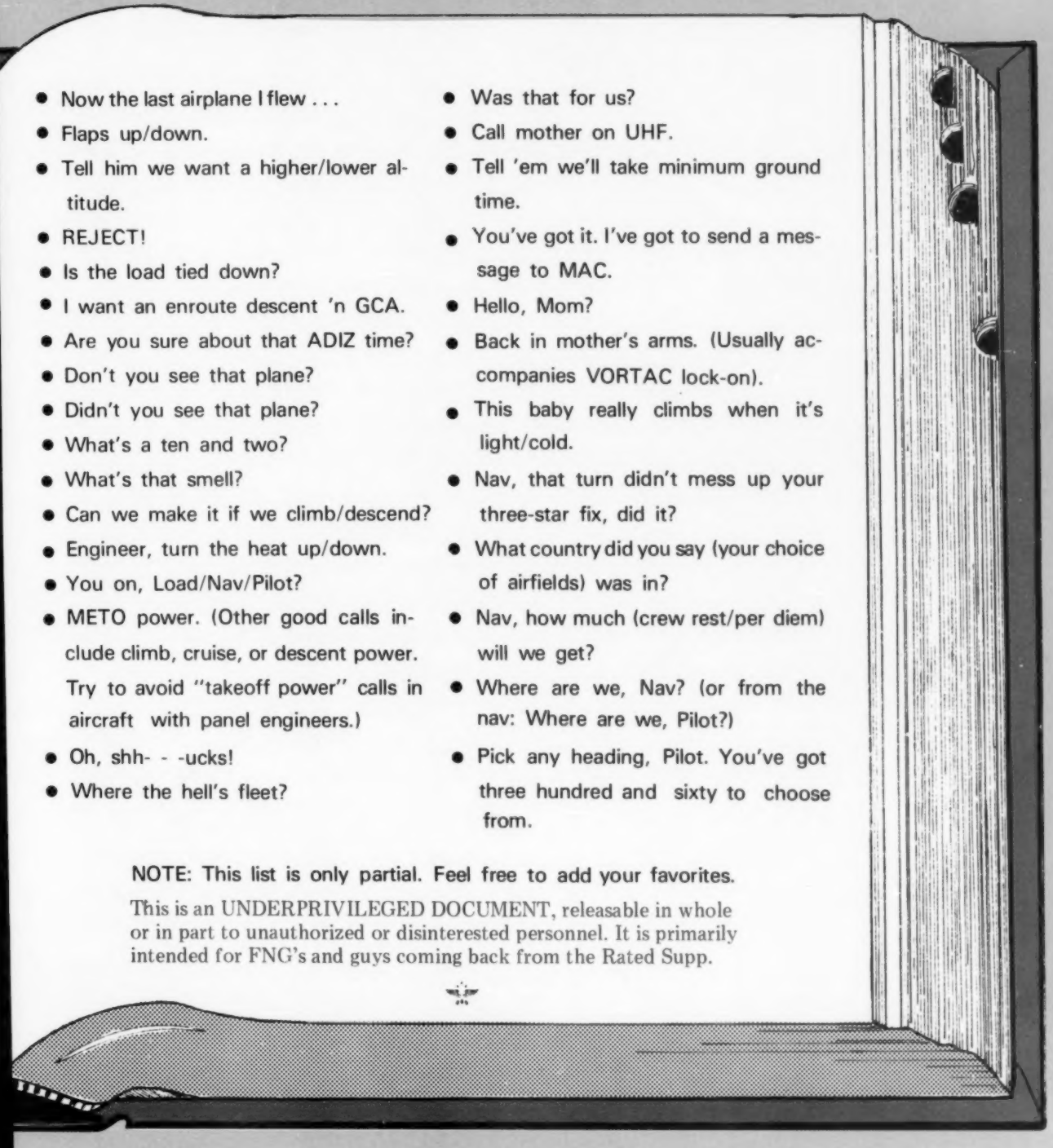
The following list of terms, phrases, and sayings are ideally suited to the novice upon embarkation as a career transport crew member. The adroit use of these phrases, liberally sprinkled among otherwise dull conversation, will dispel the "new guy" image and provide the user with an aura associated with the Old Heads. Gathered over the years, these phrases have been heard with repetition in virtually all crew-served aircraft—not all of them in MAC.

- I've got it!
- How are we doing on fuel?
- Say again.
- How are we doing on flight plan?
- Did it look okay on takeoff?
- You forgot what?
- I thought you checked that.
- What was that noise?
- Attention to briefing!
- Is everyone up in the back?
- Is anyone up back there?
- One with cream and sugar.
- You've got it!
- Say ceiling and visibility again, please.
- What's for lunch?
- Cheez, is he *still* in the rack?
- Ask which way he wants us to turn.
- Have you ever seen a whifferdill?
- Gear up/down.

s and Other Neat Sayings

by Maj Garnett C. Brown, Jr.
MAC/XPRC

e some of you Old Heads could use a little refresher, too.



- Now the last airplane I flew . . .
- Flaps up/down.
- Tell him we want a higher/lower altitude.
- REJECT!
- Is the load tied down?
- I want an enroute descent 'n GCA.
- Are you sure about that ADIZ time?
- Don't you see that plane?
- Didn't you see that plane?
- What's a ten and two?
- What's that smell?
- Can we make it if we climb/descend?
- Engineer, turn the heat up/down.
- You on, Load/Nav/Pilot?
- METO power. (Other good calls include climb, cruise, or descent power. Try to avoid "takeoff power" calls in aircraft with panel engineers.)
- Oh, shh- - -ucks!
- Where the hell's fleet?
- Was that for us?
- Call mother on UHF.
- Tell 'em we'll take minimum ground time.
- You've got it. I've got to send a message to MAC.
- Hello, Mom?
- Back in mother's arms. (Usually accompanies VORTAC lock-on).
- This baby really climbs when it's light/cold.
- Nav, that turn didn't mess up your three-star fix, did it?
- What country did you say (your choice of airfields) was in?
- Nav, how much (crew rest/per diem) will we get?
- Where are we, Nav? (or from the nav: Where are we, Pilot?)
- Pick any heading, Pilot. You've got three hundred and sixty to choose from.

NOTE: This list is only partial. Feel free to add your favorites.

This is an UNDERPRIVILEGED DOCUMENT, releasable in whole or in part to unauthorized or disinterested personnel. It is primarily intended for FNG's and guys coming back from the Rated Supp.

Global Notes

A Live One

MSgt Lionel W. Magee, 603 MASS, Kadena AB, Japan, was honchoing ALCE loading operations at General Lyman Field, Hilo, Hawaii, when he discovered and removed an unauthorized 90mm "dud" artillery round containing high explosives. The ammunition was in a Marine vehicle on the ramp of a C-141 aircraft. Sergeant Magee was awarded the MAC Distinguished Individual Safety Award for his action.

Crew Rescues Survivor

A UH-1N helicopter crew of the 48th ARRS, Holloman AFB, N. M., lifted a civilian pilot from his 9,000-foot-high crash site in the mountain wilderness of Arizona. The survivor, who suffered a broken leg, had crashed in a stand of tall trees.

The impact of the crash triggered the plane's emergency locator transmitter (ELT), which began putting out a signal. A commercial airliner picked up the signal and passed the information on through Rescue channels. The ELT continued to function for two days while bad weather and the inaccessibility of the crash site prevented ground or air rescue. Once airborne, the 48th crew took just five hours to locate the site and rescue the pilot.

Fuel Fire

Sgt Robert C. Crevier, Det 18, 39 ARRW, Plattsburgh AFB, N. Y., was presented the MAC Distinguished Individual Safety Award for his performance during a refueling fire at Loring AFB, Maine. Sergeant Crevier was refueling a UH-1N helicopter when a flash fire erupted. He started to fight the fire, but the extinguisher near the aircraft would not operate. A second extinguisher also malfunctioned, so he took a small extinguisher from the aircraft cockpit and put out the fire. The aircraft received minor damage.

Flare Drop for Real

Maj Roy A. Ryon, Capt Edward L. Fleming, Capt Richard O. O'Dell, TSgt Irvin Stiffler, and TSgt Kenneth P. Hannegan, all of the 1551 FTS, Kirtland AFB, N. M., received the MAC Individual Safety Award for their actions during an emergency on a night mission involving two HH-3's. The night was extremely dark and haze obscured the nearby mountains. Captain Fleming's aircraft was on final approach for a flare drop when the helicopter lost main transmission oil pressure and torque. While he executed an emergency autorotative descent, crew members monitored terrain and the radar altimeter and dropped flares for illumination. Captain O'Dell, piloting a second low-flying HH-3, dropped a ground flare for visual reference. At an altitude of 150 feet, Captain Fleming initiated a power recovery and, using the aircraft's landing and searchlights, landed without damaging the helicopter.

Personnel Change

Joining the staff as art director of THE MAC FLYER is Brian L. Gauss who comes to us from HQ AFCS, Richards-Gebaur AFB, Mo. Mr. Gauss has worked in the graphics field for 20 years. At Richards-Gebaur he worked as Supervisory Illustrator (technical equipment) in the Audiovisual Presentation Division, Headquarters AFCS.

A MAC aircrew experiences a "sneaky decompression," and one of their passengers winds up with . . .

A Slight Case of the Blues

"No big deal." How often have you said that to yourself after reading an incident report? After all, if nobody really got hurt, and there wasn't any damage, it doesn't amount to much, does it?

Well, maybe not. But now and then, if you look a little more closely, you can find some scary implications in what looks like a pretty trivial occurrence.

In one such incident, a C-130 crew had been doing some low-level work at an island base. Everything went normally, and after finishing the low-level mission, the Herky climbed to FL 180 and headed for its next stop. Things were still looking pretty routine until ten minutes after level-off, when a passenger complained of feeling faint and having stomach pains. His fingernails were light blue in color. The pilot was informed of the passenger's condition. At this point, he noticed that the cabin altitude was 15,000 feet.

Passengers and crew immediately donned oxygen masks while the engineer tried to determine what was causing the problem. He recycled the air conditioning master switch a few times and got the airplane pressurized again; a few minutes of oxygen took care of the hypoxic passenger. The flight continued uneventfully to destination, where a flight surgeon's examination showed no ill effects from the experience. End of incident.

If the whole thing leaves you with a tendency to yawn, just think about what *could* have happened. Since the Herky, unlike its bigger Lockheed relatives, doesn't have a cabin altitude warning light, a gradual loss of pressurization can be pretty hard to catch. In this case, it was actually the hypoxic passenger who provided the warning. Luckily, his symptoms were obvious.

But suppose, instead, he'd been one of those people who just quietly lie down and go to sleep when the oxygen supply gets low. Or suppose he'd already decided to take a practice nap, and the stomach pain wasn't enough to awaken him. A short spell of hypoxia at a relatively low altitude isn't much cause for alarm—but what about a prolonged shortage of the indispensable stuff?

Hypoxia symptoms vary widely among individuals; they range from obvious to insidious, and can be affected by all sorts of other factors. A heavy smoker, for example, can have enough carbon monoxide in his bloodstream to put his brain at a "cabin altitude" of 7,000 feet while his body is still on the ground. For him, that "relatively low altitude" isn't so low; his symptoms may occur more rapidly and be more severe than those of a nonsmoker.

The fact that none of the crew members developed symptoms doesn't mean that they weren't affected. Things like reduced night vision, slowed reaction time, and impaired judgment aren't readily apparent, but they are common results of insufficient oxygen.

Those of us who operate pressurized airplanes tend to get a little complacent about our supply of breathable atmosphere. Sure, a rapid decompression will get our attention, but a gradual pressure loss can be just as deadly. How well do you remember your own hypoxia symptoms from your last trip to the altitude chamber? If the memory is a little fuzzy, you need to be a little more suspicious the next time you "just don't feel right" while aviating at altitude. And if your aerospace vehicle isn't equipped with an attention-getting device that acts like a pinball machine when the cabin pressure drops, keep a close eye on the cabin altimeter. It doesn't take long for bad things to start happening when the air gets thin.

All the People, All the Time

"My fellow aviators . . ."

My fellow aviators, unaccustomed as I am to public speaking, I feel it essential that you understand my platform and politics, as I am throwing my flight cap into the ring.

"Yes, fellow flight persons, I want to be your aircraft commander. And I solicit your vote of confidence. If I'm elected, I promise to keep your interests at heart.

"First of all, let me say that I realize the awesome responsibility I will assume if elected. I know that you crew members are among the best trained, most intelligent aviators ever to enter a cockpit. Leading such an august group requires a person who is loyal, aggressive, dedicated and sensitive to the needs of his crew. I believe that I am such a person.

"As your leader, I realize I shall bear the responsibility, not only of decision-making, but for your welfare as well. In my role as aircraft commander, I will be heavily influenced by your expertise—after all, you are all experts.

"I will listen to you, my constituents, in carrying out my duty as decision maker. I hope to achieve such a rapport among the crew that no one will hesitate to speak out when he sees something that doesn't seem right in the operation of the aircraft.

"As a crew, we shall work together to hone a fine awareness edge and become the safest, most proficient crew in MAC.

•

"Gentlemen, that concludes my prepared text. Would you like to ask any questions?"

"Yes, Sir. I'm a flight engineer and I've got a lot of time on the bird, for what it's worth. But our present AC doesn't seem to place much stock

A politician can be elected by a simple majority of the voters. But an aircraft commander "candidate" must realize that his success depends on much more.

in what I think. For instance, one time we had a pretty bad oil leak on number one and I suggested it ought to be fixed. The AC said we'd better make an 'on-time.' Well, we did, but we had to shut the engine down about three hours into the flight. No big deal, huh?"

"Well, sergeant, making an on-time is the old 'report card' trick. Now don't misunderstand. We're here to fly airplanes, haul cargo, or perform whatever mission we're assigned. I'm sure you all feel the same way. And there may be times when it's necessary to take a bum bird—like when the enemy is shooting at us—but I don't think you and I will have any trouble ironing out differences of opinion on this score. Who else had his hand up?"

"I'm the navigator and I don't have as much time in the bird as the engineer, but I know my job. But sometimes you'd never know it. Like the time we were approaching some severe weather and I offered the incumbent AC a good deviation heading. He said we'd just bust on through the clouds, and we did. The aircraft got hail damage and I got the blame. The incumbent said I didn't have my set tuned properly. What are your feelings on that?"

"First off, let me say that I will assume *full* responsibility for anything that happens on the aircraft. I can't pretend to know everything and in situations like the one you've described, I have to count on your experience. Sarge, you've got a question?"

"Yes, Sir. I'm the loadmaster. Sometimes I feel more like a valet. The incumbent is always asking me to get coffee for him, cook his lunch, or bring a blanket or pillow so he can 'rest his weary bod.' I certainly don't mind helping out, but he gave the impression that that was my *only* job. Don't you think that is going a bit too far?"

"I agree. Every crew position is important. Personally, I don't think any one is more important than another. No, we'll work together—with mutual respect."

"Respect? I'm the copilot and most of the time I feel like Rodney Dangerfield. The incumbent calls me a 'gear puller' or 'radio operator.' And I've been told that this attitude is typical of most AC's. Is that right?"

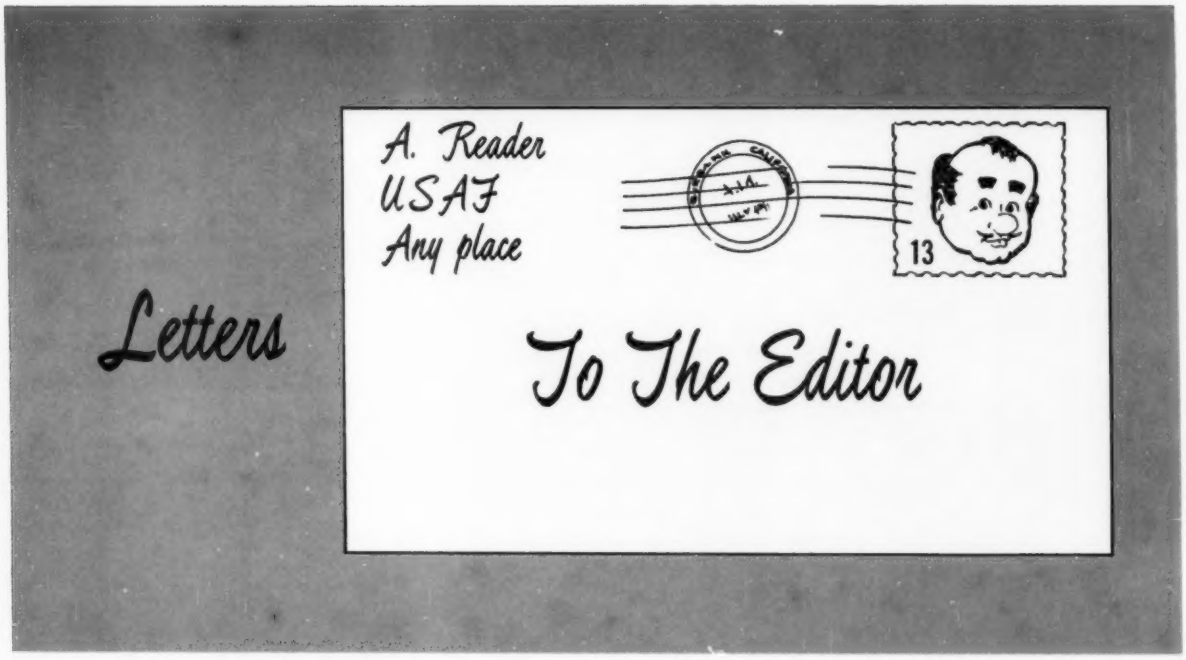
"I don't know who you've been talking to, but I assure you that those aren't my feelings on the subject. You won't always be a 'right-seater,' you know, and it's my responsibility to teach you everything I know about the game. I'll tell you when you make an error and I expect the same in return.

"My position as your aircraft commander will not be one of a commander and his 'troops,' it'll be one of a commander and his 'staff.' Without the expert advice of each member, we'll all be in trouble.

"One final word—on loyalty. As your leader, I will expect you to be loyal to me, the Military Airlift Command and the Air Force. But I know loyalty is a two-way street—I could not expect it from you without giving a full measure in return. And I promise you that.

"Let me close by saying that being an aircraft commander is a serious business. And I think that you and I working together in harmony can accomlish the mission swiftly and safely. For sure—safely.

"Now, gentlemen, if you have no further questions, I'll have to run. I'm three minutes late for the briefing and my AC is a mean SOB."



Old Photo?

Just received the February 1976 issue of THE MAC FLYER. Enjoyed articles on pages 3 and 12. Being a former C-130 troop and quality control member, I can see why the "MAC" MSET team left regarding the "Touch 'n Go" picture on the back cover of the issue. They realized that they don't inspect MATS aircraft. How old is that picture?

MSgt Albon
Altus AFB, OK

The picture of the C-141 38075 on the rear cover of your February 1976 magazine is most interesting. If the "Sarge" alluded to in your caption had been in that tail since 1965 when "MATS" became MAC, he must be rather hungry. His personal appearance should also be checked to see if he still meets 35-10 standards.

Lt Col James M. Smith
Chief, Combat Operations
Travis AFB, CA

• The C-141 bearing "MATS" markings obviously is old enough to be outdated, but not too old to foster reader comment and a few red faces at THE MAC FLYER.

Traffic Slip

A slip of the typewriter in your "Quick Stopper" article entitled "Missing Sleeve" in the October issue was quickly spotted. In the last sentence of the article, the word "traffic" appears where I am sure the correct term was intended to be "tragic."

Being a transportation squadron commander, the word "traffic" is a signal requiring immediate attention. The station traffic function of the air terminal is too frequently an area of concern, particularly when it comes to delayed departures, etc. Perhaps this is why this minute error in your otherwise excellent publication (which I have enjoyed for over ten years) was brought so vividly to my attention.

Keep up the good work.

Maj. Gary W. Godenbogen
Commander
1605 Transportation Squadron
APO NY 09406

• You're right; the "Missing Sleeve" Quick Stopper would more accurately have been entitled "Missing Word."

Portraying Women

I do not feel that your portrayal of women is in keeping with current Air Force policy on the elimination of discrimination within the Air Force. Your depictions and descriptions of women in such articles as the "C.R. Terror" episode in your November issue could well be offensive to women. "Bachelorette's degree in Fan Arts." Oh, come on. Although this treatment could be partially excused, in that this portrayal is in C.R.'s mind only, there is no excuse for the illustration, displaying a woman primarily as a sexual object.

Maj John Reimer
Det 11, 24 Weather Squadron
Reese AFB, TX

• Thank you for your comments; however, the editors view the depiction to which you object as a low key, tasteful effort to inject a female interest in the otherwise mirthless life of C.R. Terror.

Nomex and MAC

Your January 1976 article "Nomex Protection, a 50-50 Proposition" was indeed interesting and informative. TAC-trained killers have been wearing Nomex flying clothing for years and many of our jocks can attest to the lifesaving qualities of the "green goatskin." However, we do find the article somewhat contradictory to MAC policy. While your magazine extolls the virtues of Nomex, those of us who fly the "Teenie Weenie Airlines" for 89 MAW are not allowed to wear the green garment, except on local training flights. We are willing to give our 50 percent of the proposition . . .

Maj Joe Tillman
Editor
TAC ATTACK

Capt Marty Steere
Assistant Editor
TAC ATTACK

Capt Mike Byers
TAC Life Support
Langley AFB, VA

• The article was directed at those who wear the Nomex but may not be wearing it correctly. The author did not, nor did he intend to, address MAC policy concerning the wear of the Nomex in any particular unit. But to answer your implied question as to why 89th MAW pilots are required to wear the service uniform on passenger operations, we offer this explanation: AFR 60-16 authorizes major commanders to waive the requirement to wear Nomex flight suits for certain missions. The reason for the MAC policy is that the image of crew members operating in and out of civilian terminals is seen as a significant factor in passenger confidence. This policy was decided upon after weighing the extent of risk against mission requirements.

Electrical Puzzle

In the October 1975 issue of your magazine, a "Quick Stopper" asked for an explanation for the apparent lightning strike to an aircraft that did not fly through a thunderstorm area. The following is an extract from a briefing prepared by the Air Weather Service, then distributed to lower echelons for presentation to flying units.

"Aircraft triggering of lightning is a relatively common event. Aircraft attain an electrical charge by the impact of particles ranging from haze and tiny ice crystals to large rain drops. The larger the aircraft, the faster it flies, and the more particles it impacts—and the higher the total generated charge. Thus, if the cloud is active electrically, even though not producing natural lightning, then the entry of even small aircraft can trigger a strike."

I hope this sheds some light on your mystery.

SSgt David L. Corder
Forecaster
25th Weather Squadron
Bergstrom AFB, TX

The editors welcome letters from all readers, both military and civilian. Letters should be addressed to:

Editor, THE MAC FLYER
MAC/IGFE
Scott AFB IL 62225

Letters should be signed. At the author's request, names will be withheld. Letters may be controversial in nature but should be written in good taste and address specific issues rather than personalities. The editors reserve the right to print each letter in whole or in part.

C.R. TERROR

It was Friday Happy Hour, and the World's Greatest Aviator was engaged in two of his favorite pastimes: sipping Terrorific 'Tinis and passing on a wealth of misinformation to a group of amused but attentive young pilots. Just as he was about to explain why 350 knots was always the most fuel-conservative airspeed for the C-141, he felt a tug on his sleeve and turned to see Long Suffering Sam, his faithful co-pilot.

"Well, well, Sammy m'boy, it's good to see you preserving crew integrity for a change. How'd you manage to get a kitchen pass— or are you AWOL, heh, heh?"

"Sorry, Boss, but this isn't a social call," replied Sam. "The squadron's been trying to get hold of you all day, and I figured this would be the best place to find you."

The Great One's chubby face lit up. "Aha! Undoubtedly those scheduling weenies finally saw the light and assigned the World's Number One Integral Crew to that Australia mission."

"No, Sir," Sammy cut in, "they still haven't assigned anybody to that trip. But you and I and Sgt Torque have a nine o'clock show Monday morning for our annual simulator refresher."

"Simulator?" sputtered C.R. "Sammy, you've got to be kidding. Surely they can't expect the greatest living expert on Lockheed aerospace ma-

The Round One discovers that it really is possible to get hurt in the simulator.

chinery to waste his unique talents flying a box!"

"Easy, Sir," soothed the Paunchus Pilot's faithful sidekick. "You're spilling gin on your new doeskin leisure suit. Besides, it's an annual requirement, and it always does me a lot of good to bone up on systems."

"Only because you've got so much to learn, m'boy," C. R. retorted. "Why, I've forgotten more about this bent-wing bug-sucker than those simulator weenies will ever learn. And besides, those guys are so wrapped up in hydraulic pumps and circuit breakers that they've forgotten all about what real aviators do. Remember, Sammy, Airlifters Do It Longer, but Simulator Pilots Only Pretend To Do It."

"Well, anyway, I'll see you Monday morning. I'd best go home and hit the books for awhile," Sammy remarked as he turned to go.

"No need of that, m'lad," C. R. pontificated. "I'll provide the necessary expertise for all three of us. Just consider it a five-day vacation and a chance to properly anticipate the pleasures of Down Under." Sammy shrugged and left the club as the Dynamic Dispenser of Dogma turned back to his audience and ordered another Terrorific 'Tini.

It was a little after 0900 on Monday when the Portly Pilot shuffled into the simulator briefing room. Sammy was already there, working on the TOLD card. The instructor, a young captain, looked up as C. R. entered.

"Good morning, Major Terror," he smiled, extending a hand. "I'm Captain Freddy Freeze, and I'll be instructing you this week. Please have a seat and we'll go over the week's syllabus."

"Tut, tut, m'boy, no need of that," blustered the Pompous One as he dropped into a chair and inserted a gold-ringed Egyptian Oval into his ebony cigarette holder. "I'm certain that there's no make-believe crisis that can be programmed into your little toy that I haven't already overcome in the real world. Just let us strap in and you do your thing."

"Sir, I'm not sure you understand," replied Capt Freeze. "We're trying to refresh your knowledge of systems and emergency procedures, and I'd like to take the time to be sure you understand the material. We've got a lot to cover, and . . . "

"Captain Freeze," C. R. interrupted, raising an imperious eyebrow, "I don't think *you* realize that I've been dancing the skies on laughter-silvered wings since you were merely a tax exemption. But press on with your discussion of nuts and bolts, if you must. Perhaps I can contribute a few gems to your undoubtedly meager knowledge of aeronautics."

"Well, ah, yes, Sir," stammered the thoroughly discomfited Freeze, "I'd, uh, be happy to have the benefit of your, ah, experience." Sammy looked pained as the young instructor began.

An hour and a half later, C. R. and company climbed into the simulator as Capt Freeze, looking somewhat glassy-eyed, followed. He'd managed to cover about twenty minutes of his planned briefing; the World's Greatest Silver-Tongued Fox had filled the rest of the time with accounts of his aeronautical derring-do, reminiscences of Tassels Taylor, and one horrible joke about a hijacked simulator which was afterward referred to as the Missing Link.

"Sergeant Torque, start the APU," ordered the Master Manipulator as he clambered into the left seat. "Sammy, get the clearance; I'll do all the stuff on the Before Commencing Motors checklist, and we'll get this make-believe machine into the imaginary air."

"Uh, sir," ventured the instructor, "I think it would be a good idea to run the checklist, just as though you were in the airplane."

"Nonsense, m'lad," C. R. replied. His would-be mentor winced as the Gross Gripper of Go-Levers simultaneously depressed all four starter buttons, paused to light a fresh Egyptian Oval, and moved all four fuel and start ignition switches to the RUN position. "Check-

lists are merely a crutch for those too feeble-minded to understand their flying machines—like second lieutenants and standardization weenies."

A few minutes later, the simulated Starlifter leaped into the air as Sammy finished the last item of the lineup checklist. "Whheeee!" chortled the Rotund One. "Almost as much fun as the real thing. Gear up! Flaps up! We'll take 'er up to 350 knots and try an aileron roll. Then we'll . . . "

"I'm sorry, Major Terror," Capt Freeze interrupted, "but we'll have to stick to the normal climb profile. Our computer isn't programmed to handle that sort of maneuver, and besides, we've got a lot of things to cover in the next couple of hours."

"Hmpf! Balderdash!" fumed the Petulant Pilot. "What good is a simulator if you can't have some fun with it? But then, we wouldn't want you to get airsick, heh, heh, heh. Well, let's get on with it. It's a magnificent day, and the golf course awaits."

With C. R.'s browbeating of the instructor, his multiple shortcuts, and his refusal to listen to any explanations, the period flew by. The Great One and his faithful followers walked out of the simulator building fully 45 minutes early.

"Boss, maybe you oughta take it a little easy on Freddy. He's really a pretty decent guy, and he's got quite a bit more experience than you give him credit for."

"Nonsense, m'boy," retorted the Aviator with Avoirdupois. "He's just not used to working with real aviators. Why, by the end of the week, he'll have gained immeasurable knowledge through observing MAC's Finest in action. Well, no time for idle chatter. There's just time to get in eighteen holes before Monday Night Attitude Adjustment Hour." And C. R. leaped into his British racing green XKE and roared off toward the golf course.

•

The rest of the week went much the same, as the Terror of the Airways bragged, bluffed, and blustered his way through the simulator course. As they left the briefing room on Thursday, Sam glanced pityingly at Freddy, who sat motionless at the table with his head buried in his hands. He had lost several pounds in the last four days, and had developed a tic in one eye and a tendency to drop the chalk every time he used the blackboard.

"Well, Sammy," C. R. purred with satisfaction, "one more day and we're through with this nonsense for another year. Then we'll be off to Australia. Meanwhile, I've got an appointment for an afternoon of healthful exercise on the links and a relaxing, restorative evening at the local Oasis of Liquid Delights."

"But, Sir," protested Sam, "We do have a checkride tomorrow. Don't you think it would be a good idea to review the books, just in case?"

"M'boy," C. R. chuckled, "I'm endlessly amazed at your lack of foresight. If you'd followed my sterling example in planning for all contingencies, you would have noticed that Major Mel Function is scheduled to be our able evaluator—and Mel and I have been treading the footless halls of air together for lo, these many years. The checkride is a mere formality, m'boy—practically a pre-filled square."

"Uh, yes, Sir, I suppose so," sighed Sammy. 'Well, I'll see you in the morning. Enjoy your golf game."

•

As C. R. stumbled through the door next morning, traces of his revelry glaringly evident in the crimson of his eyes and the trembling of his hands, he was greeted by a sight which brought him to a paralyzed halt. Awaiting him in the briefing room was not the familiar face of his old friend Mel Function, but the equally familiar and much less welcome countenance of Major MacZaminer!

"Ah, Major Terror, we meet again," said MacZaminer smoothly. "Not feeling well?" he added, noting C. R.'s morning-after symptoms with a cold and analytical eye.

"Ah, er, well, ahem, I—that is—" stammered the Bibulous Bumbler, adding a cold sweat to his other manifestations of distress.

"Never mind, Major," interrupted the steely-eyed evaluator. "Since we're already fifteen minutes late, we'll get

right down to business. Headquarters is looking over the simulator program here, and since I am qualified as a simulator instructor, I'll be administering the evaluation today instead of Major Function."

"Ah, yass, well, certainly," dithered C. R. "Of course, you realize that Captain Freeze is, uh, fairly inexperienced, and, uh . . . "

"I've already spoken with Captain Freeze," MacZaminer cut in, "and I know all about your last few days of training. Let's get the briefing completed and get the evaluation underway, shall we?"

•

Some time later, there was a "thunk" as the simulator motion system shut off, and a grim-looking Major MacZaminer got out and headed for the briefing room. He was followed by Sam, Sgt Torque, and finally by C. R. in a dripping wet flight suit. Slinking into the briefing room, the Paunchus Pilot eased his bulk into a chair, where he sat fidgeting under the dispassionate gaze of the Major from MAC.

"Terror," MacZaminer began, "I am grading you Qualification Level Three in almost every area of the MAC Form Four. Your performance was grotesque. The only things you did right were the things your copilot led you through, and while you acted as copilot for him, you almost sabotaged *his* evaluation. Your knowledge of aircraft systems ranges from inaccurate to nonexistent, and your grasp of emergency procedures is a joke. I am recommending another full week of simulator training before re-evaluation. Do you have any comments?"

C. R. opened his mouth, thought better and then closed it again. Finally, he said "No, Sir," in a humble voice.

"Good," MacZaminer said grimly. "I'm glad you didn't try to use your instructor as an alibi. I've watched Captain Freeze before; he's an excellent instructor. Your refusal to accept his instruction and to take advantage of a week of excellent training were the real failures. I've spoken to the OIC and he's agreed to assign Major Distic as your next instructor." MacZaminer smiled slightly. "I think he'll be able to handle you a little better. Now, if you'll excuse me for a moment, I have a phone call to make." He strode from the room.

C.R. slumped in his chair. "Phew, Sammy, that was rough," he said, wiping beads of perspiration from his forehead. "And I guess it's not over yet. But who is this Distic guy, and what did MacZaminer mean by that crack about being able to handle me better?"

"Don't you know him, Boss?" Sam asked. "That's Major Sid Distic; he's been a simulator instructor from the Year One. The first thing he says when you walk in is, 'Gentlemen, this will be a five-day lesson in humility.' They say he busted a wing commander once."

"AArrgh!" the World's Most Unqualified Aviator groaned. "It's a conspiracy, Sammy; they're out to get me. I wonder what else can go wrong?"

Just then Major MacZaminer walked back into the room.

"Major Terror, I've notified your squadron commander of this evaluation. He said to tell you that he's sorry about it, particularly since the squadron had you set up on that Australia trip next week. But I'm sure he'll be able to find a replacement without too much trouble." MacZaminer's smile was not particularly pleasant. "You're still on it, though," he added, turning to Sam. "You did an excellent job, considering the handicap you were working under."

Sam looked at his Fearless Leader, who sat speechless, his mouth opening and closing. "That's okay, Boss," he said comfortingly. "You won't have to miss all the sights; when we get back, I'll let you look at my pictures—kind of a 'simulated' trip Down Under."

C. R. snorted. "Simulated? Phooey!"

Quick Stoppers

Starlifter vs Eagle

A C-141 had just accelerated to 250 knots on climbout when the crew spotted a large bird directly in their flight path. The Starlifter's pilot had no time to take evasive action. Neither did the bird (identified by its remains as a ten-pound golden eagle), which struck the number four engine cowl at the six o'clock position. The initial impact apparently fractured the cowl retaining bolts, and the subsequent compressor stall was violent enough to blow the cowl off the engine. The crew immediately shut down the engine and returned to base. Engine repair cost? Just under $53,000.

An Embarrassing Moment

During maintenance preflight of the four-engine jet, the crew chief pulled on the bungee cord connecting the pitot covers. The cord, its streamer, and the copilot's pitot cover came off—but the pilot's pitot cover remained on the aircraft. The crew chief missed the dark brown cover and continued his preflight.

During his walkaround, the pilot spotted the cover and asked the assistant crew chief to remove it. The assistant said he'd take care of it when the walkaround was completed—but other duties distracted him, and he forgot it. The pilot, busy with preparations for takeoff, didn't check to make sure the cover had been removed.

There was still one chance left—the SOF's pre-launch inspection. But it was dark, and there was no streamer attached to the seven-by-two-inch cover; the single streamer had remained on the bungee cord. The ensuing takeoff attempt was aborted when the crew noticed the difference between *airspeed indicators.*

Investigators pointed out that the SOF's responsibility is to look for pitot covers—not just for streamers.

Don't FOD the Aircraft

The C-5 had just finished isochronal inspection, and was scheduled for a local flight. As the pilot set takeoff power, the number four overheat light illuminated. The engine was shut down, and the aircraft taxied back to the ramp. Inspection revealed damage to 12 second-stage compressor blades, one stator and the inner cowling. A two-inch drive socket wrench extension was found in the engine.

Nature provides plenty of roughage for hungry turbines as it is—gravel, birds, hailstones, and so on. Supplementing the diet with tools, clothing, safety wire, and other artificial additives can only lead to a very expensive case of indigestion.

How Hard Is Hard?

A crew chief spotted a cracked fiberglass fairing at station 541 during postflight of the HH-3E. Further investigation revealed skin wrinkling and a cracked aluminum extrusion. Laboratory examination of the metal indicated no fatigue failure, and the bird had come out of phase inspection only 19 days earlier. No hard landings had been entered in the 781. So what caused the damage?

Interviews with the crews who had flown the machine since it came out of "phase" indicated only one possibility—a firm landing on the day prior to discovery of the cracked parts. The IP, who had demonstrated a steep approach to a spot landing, said the landing was firm but not unusual; two other pilots, who had observed the landing from the SOF vehicle, concurred. Apparently the landing caused the aluminum extrusion to bend, and the nine sorties flown the following day finally led to stress failure. Among the investigator's recommendations were a review of the criteria for hard landings in the HH-3, a modified Dash-6 preflight inspection, and a reminder to pilots that any suspected hard landing should be written up.

Galaxy Bites Boom - and Vice Versa

The first contact and disconnect of a night air refueling mission had been uneventful, and the pilot in the right seat had just completed the second hookup when the C-5 began to drift left. He corrected back toward center, but also began moving forward and down. Seeing the receiver nearing the lower forward limits of the refueling envelope, the boom operator punched his disconnect button and called for the breakaway. As the two aircraft separated, the Galaxy continued to move forward and down, and the crew heard a loud thump from the area of the refueling receptacle. They brought the big bird back to home station, where postflight inspectors found a foot-long tear in the right wing fillet, a hole in the leading edge of the vertical stabilizer, and an eight-foot vertical stabilizer panel missing. An eight-inch section of the refueling nozzle was found inside the stabilizer.

Apparently, boom binding near the limits of the refueling envelope prevented a disconnect, and the nozzle failed during the breakaway. The applicable tech order states, "The boom operator will hold sufficient down pressure on the ruddervator control stick during contact to insure the nozzle will clear the receptacle when a disconnect occurs." It may not, in fact, be possible for him to do so when the C-5 is nearing the lower forward limits of the envelope; the original refueling data are being reviewed to determine whether smaller limits are necessary. Investigators also recommended that all C-5 pilots be reminded of the importance of down and back relative motion during a breakaway.

QS

Overheard on the Flight Deck

Clipper One had just landed and was taxiing toward the terminal. Qantas 434 was lining up in preparation for takeoff.

Clipper One: "Tower, this is Clipper One. We'd like to report a turtle on the runway just this side of the second taxiway."

Tower: "Roger, Clipper One. Is it stationary or moving?"

Clipper One: "Oh, he's mobile—moving right to left."

Tower: "Can you give me an estimate on when he'll be clear?"

Clipper One: "Oh, he's pretty close to the edge and doing about point zero two knots."

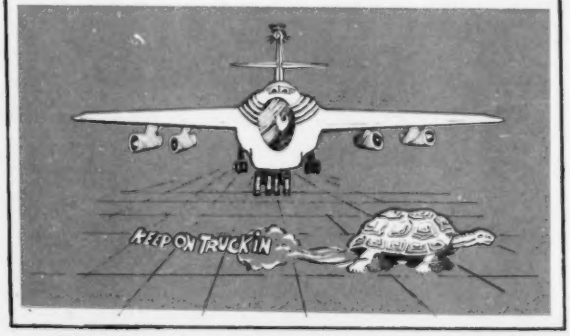
Tower: "Qantas 434, did you copy?"

Qantas 434: "Qantas 434, affirmative."

Tower: "Do you wish to delay takeoff for the traffic to clear?"

Qantas 434: "No, thanks. We'll go around him."

Tower: "Roger. Qantas 434 is cleared for takeoff. Beware wake turbulence. Departing turtle."



—Flight Operations Advisory Bulletin, Cathay Pacific Airways

Wayward Wires

Safety wires on the T-39 landing gear downlock actuator recently caused a gear-up landing for one crew, and a case of badly frayed nerves for another.

The gear-up landing resulted when an excessively long safety wire prevented the downlock from engaging. Unable to obtain a safe indication after exhausting all published procedures, the crew was forced to land with the left main indicating unsafe. The landing roll was completed on the nose gear, right main gear, and the left wingtip; the crew was unhurt.

A second crew was forced to land under almost identical conditions—except that in this case, the bit of wire simply prevented the downlock pin from tripping the landing gear position indicator switch. This landing, although somewhat hectic for the crew, was uneventful.

A one-time inspection of downlock actuator safety wires on all MAC-assigned T-39s should keep this particular bug from biting anyone else.

Fire on the Ramp

A C-141 crew, seeing sparks coming from the number two engine during start, decided to call it a day and sell the bird to maintenance. The same symptoms were noted by the maintenance troops during their engine run, and the engine was shut down again. So far, so good—except that on each engine shutdown, small amounts of fuel had been dumped on the ramp, and the third attempt at a start produced enough sparks to ignite it. Ground personnel attempted to put out the blaze with two ready fire extinguishers, but neither worked. A maintenance shift supervisor, on the flight deck during the engine run, finally grabbed one of the aircraft fire extinguishers and put out the fire. No damage resulted from this one, but the possibilities are obvious. This incident resulted from a combination of malfunctions and errors—a washer in the turbine section of the starter, failure of engine run personnel to remove fuel from the area of a known spark source, and mechanical failure of the fire bottles.

after deadline . . . .

FLIP REALIGNMENT IN THE PACIFIC -- On 15 July 1976, the Pacific and South Asia (PSA) and the Australia, New Zealand, and Antarctica (ANZA) FLIP Enroute and Terminal publications will be combined into a single package. The title of the new publication will be the same as Area Planning 3 -- Pacific, Australasia and Antarctica (PAA). The new PAA FLIP's will also be published on an expanded cycle.

The PSA and ANZA Supplements will be combined into a single PAA Supplement. The Enroute Chart coverage will remain the same, but the current ANZA Charts 1-9 will become PAA Charts 11-19. The charts and supplement will be published every 16 weeks with a Military Aviation Notice (MAN) issued at the intervening eight-week midpoint.

The Instrument Approach Procedure (IAP's) will be combined into three high/low combination volumes. These volumes will also contain the Standard Instrument Departures (SID's) plus any existing expanded airfield diagrams and Standard Terminal Arrival Routes (STAR's). The radar minima for the airfields will be moved from the Supplement to the front of these volumes. The IAP volumes will be published every 24 weeks. Two bound MAN's will be published at each of the eight-week intervals between cycles with the second MAN being cumulative.

NEXT MONTH -- The Bicentennial Issue:

* Expect some special fireworks from C. R. Terror.

* Also to celebrate, we've reincarnated a TMF classic, "The Ghost of Drifter's Reef."

* "The Great Flying Game" is what they called it at Scott Field, Illinois, in 1918. Don't miss it.

U.S. GOVERNMENT PRINTING OFFICE: 1976-665-669/10

Touch 'n Go